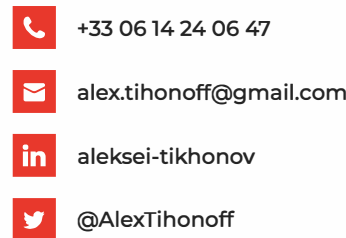


# Aleksei Tikhonov, Ph.D.

Paris, France

Peer-reviewed publications, h-index 8

Ad hoc peer reviewer, >130 reviews



With over ten years of experience in academia and nearly two years in the biotechnology industry, I have successfully driven clinical progress through innovative bioanalytical and translational strategies, focusing on biomarker discovery, assay development, and laboratory medicine.

My proven track record in managing R&D projects demonstrates my dedication to delivering high-quality, timely results and ensuring exceptional patient care.

## MAJOR IMPACTS AND ACCOMPLISHMENTS

- Managed and led translational research projects, resulting in 10 publications and 2 patents.
- Developed and validated fit-for-purpose ligand-binding assays (LBA) for biomarker quantification.
- Authored and reviewed high-quality regulatory documents and guidelines for medical devices, lab tests, and diagnostics.
- Designed and wrote 5+ phase I-III immuno-oncology clinical trials (incl. NCT04739566 and NCT04731740).
- Launched 20+ innovative advanced chemicals globally at Lumiprobe, enhancing brand awareness and customer engagement.
- Supervised a team of 4 writers and designers in a biotechnology company and mentored students and technicians in academia.
- Held leadership positions in scientific associations (ADLM, EFLM, SITC) and established effective stakeholder relationships.

## WORK EXPERIENCE

### Postdoctoral Research Scientist

Gustave Roussy

Translational Research Laboratory in Immunotherapy

March 2022 - September 2023, Villejuif, France

Supervisor: Dr. Aurélien Marabelle

- Led translational project on circulating antibodies as toxicity biomarkers in more than 200+ NSCLC patients receiving immune checkpoint inhibitors (part of PREMIS trial)
- Conducted experiments and interpreted data using multiplex ELISA (MSD Meso Scale Discovery/HuProt) and flow-cytometry (BD LSRFortessa) platforms to profile circulating proteins, cell lines, tumors, and immune cells
- Established and maintained collaborations with academic and industry stakeholders
- Wrote grant applications (>400k€) and reports

### Graduate Research Scientist

Engelhardt Institute of Molecular Biology,  
Laboratory of Biological Microchips

August 2014 - December 2021, Moscow, Russia

- Developed, validated, and implemented 3D-hydrogel glycan- and protein-microarray assays
- Initiated and led translational biomarkers research programs in laboratory ongoing projects with multidisciplinary teams, resulting in 6 publications and 2 patents
- Established and managed a biobank containing over 500 blood samples for biomarker-driven cancer trials
- Identified anti-glycan antibody repertoires in sera of more than 600 cancer patients
- Conducted PK/PD and ADA studies
- Characterized exosome subpopulations specific for colorectal cancer
- Designed and implemented 2 phase II immuno-oncology clinical trials (NCT04739566 and NCT04731740) in anaplastic thyroid cancer
- Prepared regulatory documents for marketing authorization of medical devices, developed by our laboratory spin-off company

## TECHNICAL SKILLS

- Microarray assays: design, fabrication, quality control, validation, implementation and data analysis (GenePix) of DNA, proteins/antibodies, and glycan arrays
- Immunoassay analysis: ELISA, MSD Meso Scale Discovery and Luminex
- Live cell imaging and cytotoxicity assays: Agilent xCELLigence
- Multicolor flow cytometry and cell sorting: T- and B-cell subsets analysis using BD LSRFortessa, FlowJo, and Kaluza
- Proteins and antibodies: extraction (*E. coli* inclusion bodies), purification (affinity, ion exchange, and size-exclusion chromatography), quantification (Bradford and BCA assays), 1D and 2D electrophoresis, Western Blot, fluorescent labeling and immunostaining
- Chromatography and Mass Spectrometry: GC, HPLC, LC-MS, MALDI-TOF MS and Q-TOF MS
- FFPE slides preparation
- NGS libraries preparation, quality control, and genomics/transcriptomics data analysis

## CLINICAL SKILLS

- Clinical trials design and writing: NCT04739566 and NCT04731740
- Clinical trials (phases I-III) management and data analysis
- Regulatory Knowledge: Ensured compliance with FDA, EMA, and ICH guidelines (M10, E6, E8), as well as GCP, GLP, GCLP, ISO standards (13485, 14155, 20916, 15189), and IVDR
- Biobank management for clinical and pre-clinical samples
- Statistical Data Analysis: Proficient in MedCalc, Graph Pad Prism, and R for comprehensive analysis of clinical trials and omics translational data

## WORK EXPERIENCE

### Lead Technical Writer, Communications Lead

Lumiprobe

July 2021 - September 2022, Moscow, Russia

- Led a cross-functional team to create and deliver high-quality website content and marketing materials, and managed a global social media strategy
- Created and oversaw all product documentation, including descriptions, technical specifications, and usage protocols
- Performed market analysis and participated in the global launch of over 20 innovative biotechnology products

### Data Analyst

BostonGene

March 2020 - September 2020, Moscow, Russia

- Developed and maintained a database of circulating cancer biomarkers
- Established and updated a proprietary company's platform of signaling pathways in lung cancer
- Expanded the knowledge base on targeted- and immuno-therapies

### Research Scientist (part-time)

Institute of Biomedical Chemistry

October 2011 - February 2014, Moscow, Russia

- Prepared samples and performed mass spectrometry analysis using MALDI-TOF and Q-TOF
- Identified and annotated proteins encoded by human chromosome 18

### Research Scientist (part-time)

N. D. Zelinsky Institute of Organic Chemistry

October 2005 - March 2011, Moscow, Russia

- Developed a new methodology of one-pot synthesis of various substituted styrenes via dehydrobromination and Suzuki cross-coupling reaction
- Used ionic liquids as green solvents that can be reused without affecting the yield or purity of the products
- Characterized products with NMR, IR, GC-MS, and HPLC methods

## EDITORIAL BOARD MEMBER

JCO Clinical Cancer Informatics, official ASCO journal. (IF=3.3)

## PATENTS

Biological microchip for detection of tumor exosomes in human serum/plasma for the diagnosis of colorectal cancer.

RU Patent No 2682721, November 17, 2016.

The method of diagnosis/screening of colorectal cancer, based on the simultaneous quantification of tumor markers such as proteins, antibodies to glycans, immunoglobulins G, A and, M in human blood on a biological microchip.

RU Patent No 2625018, December 16, 2015.

## EDUCATION

### Diplôme Universitaire d'immuno-Oncologie

Université Paris-Saclay

2024 - 2024, Paris, France

### Ph.D. in Molecular Biology and Oncology

Engelhardt Institute of Molecular Biology

2015 - 2021, Moscow, Russia

### Specialist diploma in Chemistry (equivalent to B.Sc.+M.Sc.)

Higher Chemical College at the Russian Academy of Sciences

2006 - 2015, Moscow, Russia

## CERTIFICATIONS

Six Sigma White Belt Certification, The Council for Six Sigma Certification (CSSC), May 2024

Guideline for Good Clinical Practice E6(R2), Gustave Roussy, August 2023

GATE-X-LS: Lead & Invest In Life Sciences From Lab To IPO, Online Course, August 2023

GSAS Harvard Biotech Club and Morrison Foerster Fall Patent Law Virtual Course, November 2022

Young Forum Gastein (YFG) Alumni, European Health Forum Gastein, 2021

Local Pathways Fellow, UN Sustainable Development Solutions Network – Youth, 2020

## LANGUAGES

English - fluent

French - proficient

Russian - native

## PROFESSIONAL SERVICE

### CLSI Document Development Committee Member on EP49 and EP24

Clinical and Laboratory Standards Institute (CLSI)

August 2022 - Present

- Played a key role in developing the Framework for Developing Evidence of Clinical Validity of Medical Laboratory Test Methods (EP49)
- Assisted in the development and revision of guidelines for diagnostic accuracy using ROC curves (EP24)

### DEI Steering Committee Member and Tumor Marker and Cancer Diagnostics Division Communications Officer

Association for Diagnostics & Laboratory Medicine (ADLM)

August 2022 - Present

- Contributed to the development of new strategies to further ADLM's commitment to DEI
- Led the DEI Publications and Resources Sub-Committee
- Played a key role in founding the ADLM DEI Leadership Award and the ADLM Scholars Program

### DEI Committee Member and Early Career Scientist Committee Member

Society for Immunotherapy of Cancer (SITC)

February 2021 - Present

- Spearheaded initiatives to include diverse patient populations in clinical trials
- Organized and moderated Scientific Sessions and Early Career Scientist Programs at the SITC 37th-39th Annual Meetings, engaging over 500 immunotherapy professionals
- Pioneered the first Speed Mentoring Event at the SITC 37th Annual Meeting, receiving 100% positive feedback

### Communication Committee Member and Task Group Young Scientists Core Member

European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)

March 2020 - Present

- Led the EFLM rebranding strategy
- Managed all social media channels and the bimonthly newsletter
- Co-founded the Task Group Young Scientists

### Global Policy Committee Member

European Society for Medical Oncology (ESMO)

January 2021 - December 2023

- Contributed to ESMO's policy efforts to advance medical oncology and promote better cancer care and research worldwide

## HONORS AND AWARDS

### Hong Kong Laureate Forum

November 2023, Hong Kong, China

Grant to participate in the world-class academic exchange event; gave an oral presentation at the City University of Hong Kong

### SITC Sparkathon Class of 2023

September 2023

Selected as one of 12 emerging leaders in cancer immunotherapy for a highly competitive program that aims to address the challenges of toxicities in cancer immunotherapy

### EFLM Laboratory Exchange Programme (EFLMLabX) Bursary

May 2022

Travel grant to continue my research project at Gustave Roussy

### French Society of Clinical Biology (SFBC) Grant

April 2022

Grant to work on a research project at Gustave Roussy

### AACR - KCA Young Investigator Scholarship

November 2019, Seoul, Korea

AACR-KCA Joint Workshop on Precision Medicine in Cancer

### EMBL Corporate Partnership Programme Travel Grant and Registration fee waiver

September 2019, Heidelberg, Germany

EMBL Course Liquid Biopsies (selected oral presentation)

### FEBS Youth Travel Fund (YTF) Grant

September 2019, Luso, Portugal

2nd FEBS Advanced Lecture Course on Oncometabolism (selected oral presentation)

### ESMO Translational Research Unit Visit (TRU) Fellowship

January 2019, Brussels, Belgium

Competitive fellowship to visit the Breast Cancer Translational Research Laboratory at Institut Jules Bordet

### CCE - EACR Fellowship

October 2018, Algarve, Portugal

Summer School in Translational Cancer Research (selected oral presentation)

### Edina Trust Grant

October 2017

Grant named "Andrei Mirzabekov Travel Grant Scheme" via a gift aid donation from Professor Sir E.M. Southern

### Russian Federation Government Scholarship

January 2017 - December 2017

Highly competitive one-year scholarship

## PUBLICATIONS

1. Pokrovsky, V. S., Qoura, L. A., **Tikhonov, A. A.**, Rubina, A. Y., & Kushlinskii, N. E. Multiplex analysis of ovarian cancer patients using glycan microarray. *Analytical Biochemistry*, 2025, 115806. **(IF=2.6)**
2. Auen, T., Brice, L., **Tikhonov, A.**, Wang, J., Fyffe-Freil, R. Applying a DEI-HE Lens to Your Laboratory. *The Journal of Applied Laboratory Medicine*, 2024, 9(6), 1110-1112. **(IF=1.8)**
3. Welsh, J., **MISEV Consortium**, Théry, C., Witwer K. W. Minimal information for studies of extracellular vesicles (MISEV2023): From basic to advanced approaches. *Journal of Extracellular Vesicles*, 2024, 13 (2), e12404. **(IF=16)**
4. Bauçà, J. M., Imperiali, C. E., Robles, J., Díaz-Garzón, J., Vuljanić, D., Begović, E., **Tikhonov, A.**, Alic, L., Nikler, A., and Simundić, A.-M. Thoughts and expectations of young professionals about the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM). *Clinical Chemistry and Laboratory Medicine*, 2020, 59 (1), 71-77. **(IF=3.8)**
5. **Tikhonov, A.**, et al. Glycan-specific antibodies as potential cancer biomarkers: a focus on microarray applications. *Clinical Chemistry and Laboratory Medicine*, 2020, 58 (10), 1611-1622. **(IF=3.8)**
6. **Tikhonov, A.**, et al. Analysis of Anti-Glycan IgG and IgM Antibodies in Colorectal Cancer. *Bulletin of experimental biology and medicine*, 2019, 166, 489-493. **(IF=0.74)**
7. Savvateeva, E., **Tikhonov, A.**, et al. Exosomal surface protein markers in diagnosis of colorectal cancer. *Molecular Biology*, 2017, 51, 659-665. **(IF=1.20)**
8. Butvilovskaya, V., **Tikhonov, A.**, et al. Hydrogel microchip as a tool for studying exosomes in human serum. *Molecular Biology*, 2017, 51, 712-717. **(IF=1.20)**
9. Feyzkhanova, G., Voloshin, S., Smoldovskaya, O., Arefieva, A., Filippova, M., Barsky, V., Pavlushkina, L., Butvilovskaya, V., **Tikhonov, A.**, Reznikov, Y., and Rubina, A. Development of a microarray-based method for allergen-specific IgE and IgG4 detection. *Clinical Proteomics*, 2017, 14 (1). **(IF=3.8)**
10. Arefieva, A., Smoldovskaya, O., **Tikhonov, A.**, and Rubina, A. Allergy and autoimmunity: Molecular diagnostics, therapy, and presumable pathogenesis. *Molecular Biology*, 2017, 51, 194-204. **(IF=1.20)**
11. **Tikhonov, A.**, et al. Differential quantification of SCCA1 and SCCA2 cancer antigens using a hydrogel biochip. *Analytical Methods*, 2016, 8 (44), 7920-7928. **(IF=3.53)**
12. Butvilovskaya, V., Tsybul'skaya, M., **Tikhonov, A.**, et al. Preparation of recombinant serpins B3 and B4 and investigation of their specific interactions with antibodies using hydrogel-based microarrays. *Molecular Biology*, 2015, 49, 705-713. **(IF=1.20)**
13. **Tikhonov, A.**, et al. One-pot synthesis of substituted styrenes from vicinal dibromoalkanes and arylboronic acids. *Russian Chemical Bulletin*, 2007, 56, 122-129. **(IF=1.20)**

## MISCELLANEOUS PUBLICATIONS

1. Buchta, C., Gidske, G., Henriksen, G. M., and Badrick, T. The European Organisation of External Quality Assurance Providers in Laboratory Medicine (EQALM) Statement: guidelines for publishing about interlaboratory comparison studies (PubILC). *Critical Reviews in Clinical Laboratory Sciences*, 2024, 1-11. **(IF=10)**
2. Al Samara, J., Determe, W., Gernez, É., Lebredonchel, É., Lefèvre, C., Lenski, M., **Tikhonov, A.**, and Vaudran, L. Retours d'Euromedlab 2023 des Juniors. *Annales de biologie clinique*, 2023, 81 (4), 425-434. **(IF=0.5)**
3. Lemonnier, F., Deschildt, M., **Tikhonov, A.**, and Grzych, G. Reports of the Juniors' Euromedlab. *Annales de Biologie Clinique*, 2022, 80, 3, 287-293. **(IF=0.5)**
4. Singla, R. K., De, R., ..., **Tikhonov, A.**, ..., Shen., B. The International Natural Product Sciences Taskforce (INPST) and the power of Twitter networking exemplified through #INPST hashtag analysis. *Phytomedicine*, 2023, 108, 154-520. **(IF=7.9)**
5. Kletecka-Pulker, M., Mondal, H., ..., **Tikhonov, A.**, ..., Atanasov, A. Impacts of biomedical hashtag-based Twitter campaign: # DHPSP utilization for promotion of open innovation in digital health, patient safety, and personalized medicine. *Current Research in Biotechnology*, 2021, 3, 146-153. **(IF=5.6)**